

# Cotribution of Thajji towards Rural Development among Yobin Community of Arunachal Pradesh

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**Abstract**— Persimmon is an oriental fruit that has been cultivated in Asia for thousands of years. It belongs to the genus Diospyros. There are about 200 species of persimmon found all over the world. Literally, it means 'Food of the god' which is said to have originated in China. Persimmon is the national fruit of Japan. Besides, Jammu & Kashmir, Himachal Pradesh and Uttaranchal, it is also grown in Vijoyanagar and Gandhigram areas of Arunachal Pradesh by Yobin community since 20th century. There are four varieties of persimmon found in Vijoyanagar and 'Thajji' which is the local name of a variety cultivated in Vijoyanagar is one amongst them. This variety is almost not seen in India except in Vijoyanagar and Gandhigram areas. In recent times, the Yobin community has been trying to commercialize it. However, despite the numerous marketing constraints, Thajji can be still considered as a fruit with huge potential for rural development among Yobin community. This paper endeavors to study role of Thajji in rural development among Yobin community of Arunachal Pradesh. It also attempts to study the prevailing scenario and its marketing impediments.

**Keywords:** Arunachal Pradesh; Cultivation; Persimmon; Rural Development; Thajji; Vijoyanagar and Yobins.

## 1 INTRODUCTION

As far back as the 14th century, the Chinese were trading in Persimmons, according to Marco Polo. In Africa, the fruit, bark and wood of the Persimmon have been in use since the 16th century. Native Americans, early European colonist and later settlers used the fruit for both food and medicines. This fruit could be processed into gem, jelly, powder, chips, cake, juice etc.

Persimmon is the national fruit of Japan. China and Japan is the world's leading producer of this fruit. Persimmon was introduced into India by European settlers in the early 1920s. It is grown on a limited scale in Jammu and Kashmir, Himachal Pradesh, hilly areas of Uttar Pradesh and in few parts of Eastern India. The tree is deciduous. The leaves are oval or oblong, glossy on the upper surface and silky beneath. The fruit may be round, conical, flattened or nearly square in shape; with thin smooth skin that is yellow, orange or red in color. It bears a striking resemblance to the tomato. The flesh is yellow or brown in color, and may contain 4-8 flat brown seed (some varieties are seedless). A distinctive feature of the flesh is that it tastes extremely bitter and unpleasant when unripe, but has a rich, sweet and spicy flavor on maturity. This is because the unripen fruit contains a group of chemicals known as tannins. As the fruit ripens and softens, the tannins become inert and the astringency disappears. Persimmon is a nutritious fruit that is low in sodium, cholesterol and saturated fat. It is also a good source of vitamin A, C dietary fiber and manganese. However, it is not recommended for dietary as it is high in calories. While persimmon is eaten fresh in the USA, the custom in Asia has been to dry it for storage and consume it during winter and spring. In China, dried Persimmon is a particular favorite during the New Year Celebration in February. The fresh fruit is eaten raw and used to make jams and jellies and to flavor ice creams and yoghurt. Further, it is added to fruit salad and baked in cakes and cookies. Persimmon has other non-food uses as well. The tannin from the un-ripe fruits is used in dyeing and as food preservatives. In Japan, it is used for brewing sake, a rice wine. A decoction of the calyx and stem is used to treat respiratory complaints. Persimmon

wood is hard and heavy, and has been used to make the heads of golf clubs.

In Vijoyanagar region, four types of persimmon are found out of which three of them have seeds and are called Sinali and the fourth which is seedless is called Thajji. However, Yobin people of Vijoyanagar circle of Arunachal Pradesh grow only Thajji. It is said that Thajji has been grown in Vijoyanagar since ancient times. Like other fruits, this fruit depends upon its tree. Normally, Thajji tree varies from 5ft to 18ft tall. Bigger the tree, larger is the production. A Thajji tree can bear fruits from 200 to 900 units according to the strength and the size. It is found that the Yobins like to eat fresh Thajji fruit. However, when they want to keep it for longer period, they pluck it when it is ripe (red in color) and after removing the outermost covering part, it is cut into small pieces. Later on, it is dried in sunlight. There are also other ways to store it for longer periods. Yobins also ferment Thajji and make fermented juice which can be kept throughout the year.

In the earlier days, Thajji was grown by the Yobin community for their self-consumption. Nowadays, they have started to sell dried Thajji in the market. As there is no proper road connectivity, selling fresh Thajjis still a challenge because it is heavy to carry to the nearest market compared to the dried ones and also because of its perishability. Despite the large production of this fruit, Yobin community still faces numerous marketing challenges.

Nevertheless, given a correct dose of infrastructural development, skill enhancement of the cultivators, product promotion and government supports, Thajji can be considered a fruit with high un-exploited market potential that will foster development among the Yobin community.

## 2. OBJECTIVES

The present paper makes an attempt:

- (i) To discuss role of Thajji in rural development in the study area.
- (ii) To understand the prevailing scenario & marketing impediments of Thajji in the study area.

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Method

The research is exploratory in nature. The study was surveyed through respondent administered questionnaire which consisted of both close ended and open ended questions followed by an in-depth interview.

#### 3.2 Sampling Techniques & Size

For the present study, the researcher has used convenience sampling under non-probability sampling technique. Altogether, 20 respondents from Yobin community (cultivators of Thajji) are selected for the present study to represent the population parameter.

#### 3.3 Universe of Study

The present study is carried at Vijoyanagar (Dawodi) circle only. It is one of the remotest areas of Arunachal Pradesh and falls under Changlang district, Arunachal Pradesh, India. So, the universe of present study encompasses six villages namely Dawodi, Shidi, Shidiku, Nibodi, Hazolo, Ngwazakha of Vijoyanagar circle where Thajji is extensively grown and produced. In addition, the reference period of the present study is 2010-11 to 2012-13. Field data over these three years is used for analysis for the present study.

#### 3.4 Tool of Data Analysis

Sex of Respondent	Frequency	Percent
Male	15	75.0
Female	5	25.0
Total	20	100.0
Age of Respondent	Frequency	Percent
below 18	1	5.0
18-24	4	20.0
25-30	7	35.0
above 30	8	40.0
Total	20	100.0
Education of Respondent	Frequency	Percent
Uneducated	6	30.0
Under-matric	7	35.0
Matriculate	3	15.0
XII passed	3	15.0
Graduate and above	1	5.0
Total	20	100.0
Total	20	100.0

For analysis of data, pie chart, bar chart, frequency distribution etc, has been used to draw inferences. SPSS (version 15) has been used to analyze field data.

### 4. ANALYSIS AND INTERPRETATION OF DATA

**Table 1: Basic Information of Respondents**

Source: Field Study

It is observed from Table 1 that male respondent comprises 75 % of the total samples. Moreover, respondents whose age is above 30 years constitute 40 % of the total sam-

	Frequency	Percent
Strongly Disagree	19	95.0
Disagree	1	5.0
Total	20	100.0

ples. Furthermore, it can be seen from the table that majority

(65%) of the respondents are either uneducated or under-matriculate.

**Table 2: Cultivators responses on production and marketing assistances provided for Thajji by State Govt.**

Source: Field Study

It is observed from Table 2 and Diagram 1 that majority of Thajji cultivators of the study area are quite unsatisfied with regard to the assistances provided by State Govt. towards promotion of this fruit. 95 % of the respondents are strongly dissatisfied whereas the remaining 5 % of the total respondents is just unsatisfied. The six villages under study do not enjoy banking facilities. The prevailing system of storage is quite primitive and cannot be regarded as satisfactory and the non availability of scientific storage facilities presents a great risk of loss in quantity and quality. No public or private warehousing agency exists in this region. No technical guidance, supervision and assistance are provided by the government to the cultivators of this fruit. It is therefore imperative that the government should take up initiative to protect the interest of the Yobin community by providing at least the basic amenities like communication, electricity, and financial assistance in the form of credit facilities etc. Sustained efforts should be put in

	Frequency	Percent
Agree	12	60.0
Strongly Agree	8	40.0
Total	20	100.0

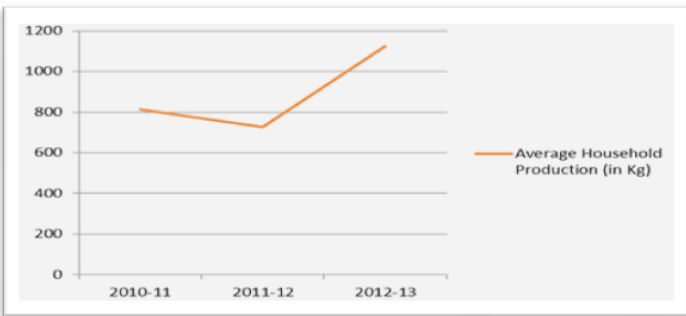
by the government & various agencies to built rural storage centres on priority basis which can also be used to store other agriculture produce.

**Table 3: Cultivators' perception on distribution of Thajji as a proble**

Source: Field Study

It is revealed from Table 3 and that 60 percent of total respondents is found to have agreed upon that distribution poses a major threat to marketing of this fruit in the study area. Moreover, 40 percent of respondents strongly agreed that the same is a major problem concerning commercialization of Thajji. Roads have one of the most beneficial impacts on rural development. A multitude of benefits are attributed to rural road development including increased production, better farm prices, rural industrialization, better educational standards and higher life expectancy; in short balanced and faster development of rural areas (Das 2002). The Pradhan Mantri Gram Sadak Yojana (PMGSY) which was officially launched in 2000 is yet to show its face in this region. As there is no road connectivity, farmers has to carry the produce by walking on foot for 5to 6days to reach the nearest town Miao(157 km away from the Thajji growing regions)to sell it there or to transport it to other locations. During the rainy days, it becomes far

more problematic. It is therefore suggested that the government should take up immediate steps to build roads that will connect this area with the rest of the country which will in turn expand the market for this fruit by bridging the gap between the producers and the consumers located in different areas. There is also a need to develop proper distribution arrangements involving of co-operatives, government and private agencies. These activities would transform the economy



of this region from the subsistence stage to the developed commercial stage.

**Table 4: Household Production of Thajji in the Study Area**  
Source: Field Survey

**Graph: 1**

It is unveiled from Table 4 and Graph 1 that production of Thajji in these three years is not uniform. Average household production of this fruit during the reference period is found highest during 2012-13 with 1123 kg. However, the lowest being produced during 2011-12 registered 725 kg. Again, Average household production of Thajji during the study period of three years is 887 kg.

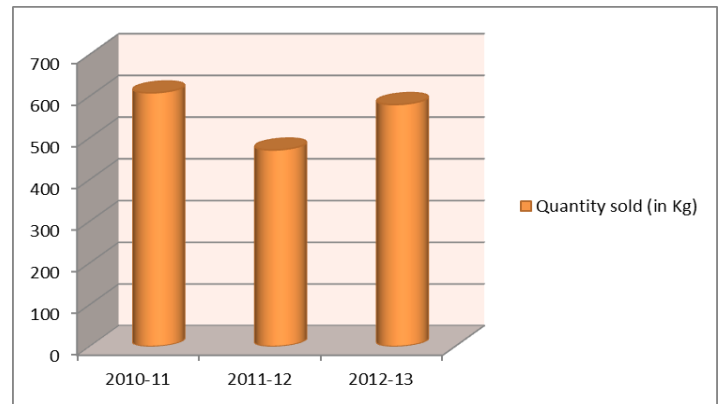
From the interview, it can be deduced that the fluctuations in production is because these cultivators entirely depend on nature. The use of fertilizers, insecticides, pesticides, herbicides etc. is almost negligent. It is therefore suggested that the government and NGOs should take up some steps to develop production and business skills for these marginal cultivators by providing short and medium term training programmes on how to use pesticides, operating spraying and dusting equipments, administering correct dose of chemicals etc.

Credit is one of the key parameters for increasing output. In order to sustain and accelerate the technological change in agriculture, the availability of credit and its use in the most efficient way is extremely important. The survey reveals that there are no institutional agencies that operate in this region. It is therefore recommended that institutional agencies that provide credit at a concessional rate of interest should extend their operations in this region too.

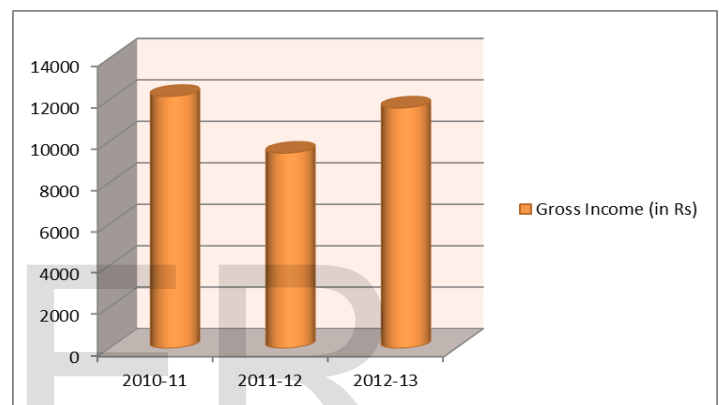
**Table 5: Sales of Thajji, Price and Gross Income its Grower in the Study Area**

Source: Field Study

Year	Quantity sold (in Kg)	Price (in Rs)	Gross Income (in Rs)
2010-11	608	20	12160
2011-12	471	20	9420
2012-13	580	20	11600



**Diagram 2**



**Diagram 3**

The primary aim of farming business is to maximize profits in a sustainable way. It is evident from the above table that household sales of Thajji are highest during 2010-11 approximating an average of 608 kg. However, during the reference period, its lowest sales are recorded at 471 kg during 2011-12. It can be observed from Table 5 that market price of Thajji in and around the study area has remained constant at Rs 20 per kilo throughout the study period. The household gross income of Thajji growers is highest during 2010-11 and average household is found to have earned Rs 12160. However, the same is found lowest during 2011-12. Moreover, trend of sales and gross income of Thajji growers remain same as seen from diagram 4 and 5. It is due to unchanged market price of Thajji.

Prices are determined by the forces of demand and supply in the market. The low price of this fruit coupled with low sales has led to low income for the farmers. This may be attributed to low demand of this fruit. Despite its tasty flesh, high nutritional value & medicinal properties, this fruit is concentrated mostly in Vijoyanagar area and therefore it is not known to a large number of people. It is therefore suggested that promotion of this fruit by highlighting its significance through various media to create awareness among the people is the need of the hour. Demand should be created by making special efforts to stimulate the desire for this fruit with the

ultimate objective of sale at a profit. Growers should act as ambassadors of this fruit by promoting it at every opportunity. As this fruit is un-aware to many, advertisement with pictures may generate demand and result in increased sale at some time in the future.

## 5. IMPORTANT FINDINGS

- 1) Majority of Thajji growers are male, above 30 years and are under-matriculate or uneducated.
- 2) 100% percent of its growers strongly disagree/disagree upon effectiveness of various assistances provided by Govt. to them.
- 3) 60 percent of its growers are found to have agreed upon that distribution poses a major threat to marketing of this fruit in the study area.
- 4) Production of Thajji fluctuates significantly during the reference period. Average household production of Thajji during the study period of three years is 887 kg.
- 5) Normally, Thajji tree vary from 5ft to 18ft tall. Thajji trees bear fruits ranging from 200 to 900.
- 6) Price of Thajji is Rs 20/kg which is same in all the three years of the study period in and around the region.
- 7) An average household sale of Thajji is found highest during 2010-11 with 608 kg in the study area.
- 8) Trend of sales and gross income of Thajji growers remained more or less the same due to unchanged market price of Thajji.
- 9) Average household gross income of Thajji growers is Rs 12160 per year in the study area.
- 10) Despite significant production of Thajji in the study area, its growers are not earning proportionate income due to various constraints.

## 6. CONCLUSION

Thajji can be seen as a catalyst of economic development for the Yobin community. However, its economic potential is still un-tapped. The scope of its commercialization is also restricted due to some reasons associated with this region like poor distribution, limited marketing knowledge of farmers and unawareness of this fruit by the general masses. Because of these, even with sizeable production of Thajji in the study area, the growers are not earning proportionate income. From the survey, it is felt that Thajji growers should be given adequate trainings on different aspects- marketing, value addition, post-harvest management etc. Moreover, people of other regions should be made aware of this fruit so that its market could be expanded by using various demand creation techniques. It is also suggested that government should start focusing on infrastructural development of this long neglected region. If constraints such as poor transport facilities, lack of proper communication, deplorable condition of primary markets, weak co-operative organization etc. could be tackled, it is very hopefully in the near future, Thajji which is also known as 'Fruit of the God' will definitely pave ways for socio-economic development of Yobin community in particular and Vijoyanagar circle in general.

## 7. REFERENCES

- [1] Barua, M., and Barua, N., (2010); "Marketing of Processed Fruit and Vegetable", Daya Publishing House, Darya Ganj, New Delhi- 110002.
- [2] Das, Sibabrata (2002), "On the Rural Road", Brand Wagon; The Financial Express, October 7, p.1
- [3] David A. Osborn and Dr. Karl V. (2011); 'Grafting Persimmons: Step One', Journal of QDMA, June- July issue, Miller qdma.com
- [4] David A. Osborn and Dr. Karl V. (2011); 'Grafting Persimmons: Step Two', Journal of QDMA, June- July issue, Miller qdma.com
- [5] 'Growing the Australian persimmon industry'; Annual Industry Report (2008-09) of Horticulture Australia Limited (HAL) Level 7, 179 Elizabeth Street Sydney, [www.horticulture.com.au](http://www.horticulture.com.au)
- [6] Gupta, S.K., (2009); "Horticulture Crop Production", Eastern Book House publisher, Panbazar, Guwahati- 781001.